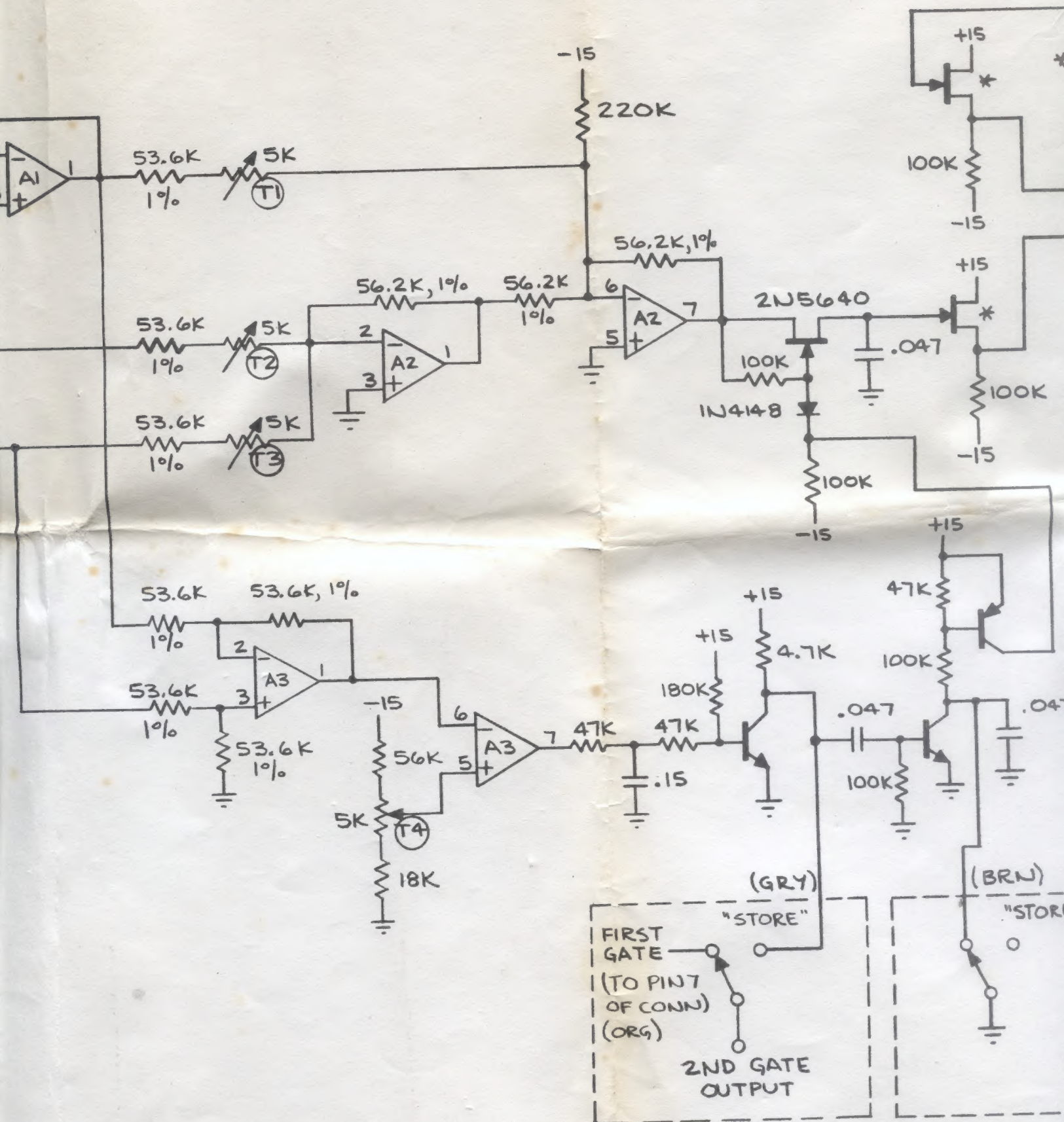


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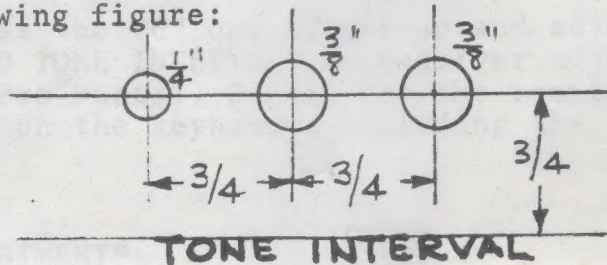
OBERHEIM ELECTRONICS, INC.  
1549 9th Street  
Santa Monica, CA 90401

## NEW TWO-VOICE MODIFICATION KIT for ARP 2600-P Keyboard

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### INSTALLATION

1. Carefully remove the keyboard electronics panel.
2. Drill three holes in the panel as shown in the following figure:



3. Install the two-voice circuit board by soldering the wires extending from the board to the appropriate points on the keyboard electronics circuit board. (See "Connection Points" diagram)
4. Install the two mini-jacks and the toggle switch in the holes just drilled. Use fiber insulating washers when mounting the jacks. Label the switch "STORE", the jack in the middle "2nd CV" and the jack on the end "2nd GATE". Orient the switch terminals so that the end with the grey wire is down.
5. Connect the orange wire to pin 7 of the keyboard electronics board connector.
6. Connect the blue wire to either center terminal on the "TUNING" on-off switch.
7. Reconnect the keyboard electronics connector and the single wire.
8. Install the threaded spacers if necessary to provide clearance for the 2-voice board.



## FIXED TONE INTERVAL ADJUSTMENT

(The "FIXED TONE INTERVAL" adjustment must be carefully made before the two-voice adjustments can be attempted.)

1. Plug one end of a patch cord into the "KBD-CV" jack of Oscillator 1. Leave the other end of the cord free.
2. Depress low "C" on the keyboard and zero beat Oscillators 1 and 2. (The zero beats can be accentuated by listening to Oscillators 1 and 2 through the Ring Modulator.)
3. Depress the "C" one octave up and adjust the "FIXED TONE INTERVAL" screwdriver adjustment for zero beats. Repeat for the remaining "C's" on the keyboard, including the top "C".

## TWO-VOICE ADJUSTMENTS

- 1) Place "STORE" switch in off position.
- 2) Insert patch cord between "2nd CV" jack and "KBD-CV" input to Oscillator 2.
- 3) Listening only to Oscillator 2, hold down top note on keyboard and while alternately depressing and releasing bottom note on keyboard, adjust T1 for no pitch change.
- 4) Listening now to both Oscillator 1 and Oscillator 2, depress lowest key on keyboard and tune oscillators together with synthesizer controls.
- 5) Depress highest key on keyboard and adjust T2 so that oscillators have the same pitch.
- 6) Repeat 3), 4) and 5) twice.
- 7) Turn "TUNING" switch on, rotate "TUNING" knob fully clockwise and adjust T3 so there is no pitch shift between the oscillators.
- 8) Repeat 3) through 7) as necessary.
- 9) Turn on "STORE" switch.

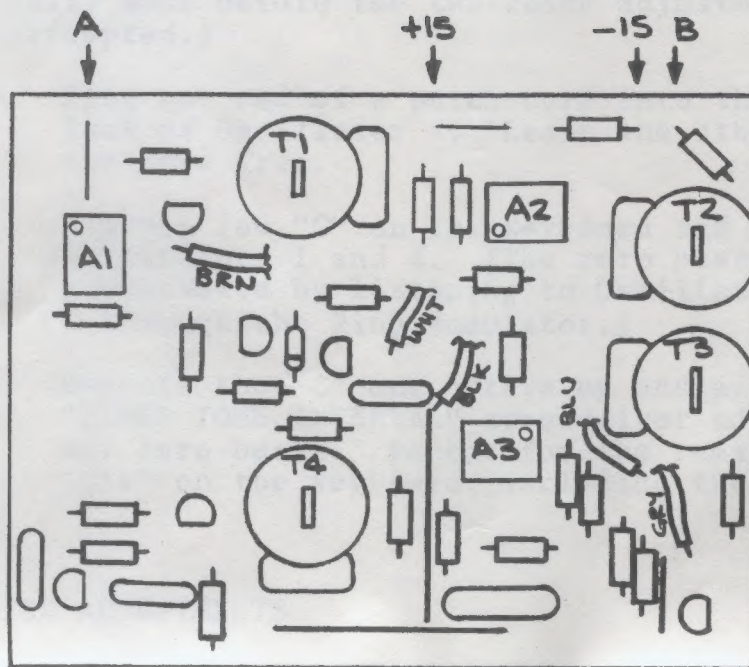


- 10) Turn T4 fully counter-clockwise. Hold down low C and alternately depress the C# and D just above. Slowly turn T4 clockwise until the C# and D are both stored. Note trimmer position that just allows the C# to be stored. Continue turning T4 clockwise until storage no longer functions. Then set T4 half way between this point and the point where the C# was just stored.

## USE

There are two modes of operation of the New Two Voice Kit. When the "STORE" switch is off the second control voltage is generated but not stored. This mode allows unisons to be played. When the "STORE" switch is on, the second control voltage is stored whenever two notes are played at the same time. In order to cause a two note interval to sustain upon release of the keys, always remember to release the top note first. Since a unison is by definition only one note depression, unisons are not possible when the "STORE" switch is on.

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*
*           IMPORTANT           *
*
*   For the new two-voice kit  *
*   to operate properly, the  *
*   keyboard contacts must be  *
*   cleaned occasionally.      *
*
*****
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NEW TWO-VOICE KIT  
TRIMMER PLACEMENT

APRIL 15, 1975  
REV JUNE 2, 1975



